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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/758,823	01/11/2001	Rockwell N. Yarid	80634DMW	9261

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EXAMINER

PHAM, HAI CHI

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/758,823

Applicant(s)

YARID ET AL.

Examiner

Hai C Pham

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 8-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Ng (U.S. 5,359,431).

Ng discloses an image forming method and apparatus for correcting image non-uniformities, the apparatus comprising a position-based non-uniformity corrector adapted to correct endemic non-uniformity of pixel regions along at least one established correction axis, said pixel regions at least comprising one image pixel, based upon the position of said pixel regions along said correction axis (printhead pixel position on each line being determined by using a printhead pixel position counter as well as printhead line location counter, a single pixel or a cell/super-pixel with a plurality of pixels can be corrected for non-uniformity based on the non-uniformity look-up table 55), and an intensity-based non-uniformity corrector adapted to correct endemic non-uniformity of said pixel regions along said correction axis, based upon the intensity of said pixel regions (using the brightness correction look-up table 53 for correcting the intensity of each pixel) (Fig. 13).

With regard to claims 2-7, 9-13, Ng further teaches:

- said correction axis is aligned with each new raster scan line (each of the printhead line location being determined by the printhead line location counter) (Figs. 11, 13),
- said correction axes are perpendicular to raster scan lines, and there is a correction axis for each pixel region along said raster scan lines (the printing apparatus being provided with a pixel position/location counter as well as pixel line counter (see Fig. 13), therefore, the target pixel for correction is being determined within the two-dimensional image area formed by consecutive lines of image),
- a look up table (LUT 53), said look up table supplying correction data utilized by both said non-uniformity correctors,
- each pixel region contains only one pixel (a single pixel or a cell/super-pixel with a plurality of pixels can be corrected for non-uniformity) (col. 4, lines 15-34),
- for each pixel region, one data value is utilized by both said non-uniformity correctors to correct non-uniformities (a corrected 6-bit/pixel gray level being provided to the printhead as printing data) (Figs. 11, 13).

Method claims 1-6 are deemed to be clearly anticipated by functions of the above structures

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2861

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ng in view of Usami et al. (U.S. 5,844,699).

Ng discloses all the basic limitations of the claimed invention including the number of entries in the look up table (53) with data used by said non-uniformity correctors equals the chain product of the number of pixel regions in each scan line (by counting each pixel within a line), and the number of intensity levels possible for each pixel region (40 levels/pixel in LUT 54, Fig. 11), but the except for the number of colors used to produce said pixels.

Usami et al. discloses a color image processing apparatus provided with a density correction table (1009, Fig. 10) including a table (1014) for storing data corresponding to the colors, a table (1013) for determining the density level for each color.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include data related to the colors into the look-up table of Ng as taught by Usami et al. The motivation for doing so would have been to allow reproduction of colored images.

Claim Rejections - 35 USC § 103

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C Pham whose telephone number is (703) 308-1281. The examiner can normally be reached on T-F (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin R. Fuller can be reached on (703) 308-0079. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722, (703) 308-7724, (703) 308-7382, (703) 305-3431, (703) 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



HAI PHAM
PRIMARY EXAMINER
November 17, 2003